Workshop Summary

Cellulosic Ethanol Workshop

November 8, 2006
100 Cambridge Street, Boston, MA

Attendees:

Of the 112 workshop participants, 17% were University researchers, 34% were various companies, 7% investment firms, 10% foundations and advocacy groups, and 29% state and federal representatives.

Overview: Time is Ripe to Encourage Production of Cellulosic Ethanol

- Massachusetts is proud to support clean energy for its role in environmental protection, energy independence, creating new technology markets and providing potential benefits to our paper industry, forestry, and agricultural communities.
- Our state organizations have successfully retained as well as attracted new business in Massachusetts and stand ready to support the cellulosic ethanol industry sector as well as individual company needs.
- The state is supporting federal funding applications for a Wind Turbine Research Facility and the partnership for a Bioenergy Research Center.

Cellulosic Ethanol Research and Development Panel

- Research is taking an integrated approach to production of cellulosic ethanol, including:
  - Optimization of feedstocks
  - Chemical and physical pretreatment
  - Consolidated biological processing using enhanced microbiological agents and
  - Interest in piloting an integrated biorefinery for forest byproducts
- University research has resulted in the creation of new business.

Industry Panel

- Industry approaches: designing more easily fermented feedstock, optimizing bioprocessing and planning several cellulosic ethanol production facilities in the U.S.
- Industry suggestions include:
  - Need for educated workforce to take multi-faceted approach to production
  - Ethanol subsidy to reduce investment risk
  - Production testing facility at a publicly funded incubator site could help remove start-up risks
  - Must improve the economic viability of production and have regional, small plants near users
  - Must identify multiple markets and end product use as well as use for residuals

- Take advantage of existing heterogenous feedstocks such as agricultural residue, forestry byproducts and pulp mill waste containing cellulose
- Encourage DOE to fund the $2Billion revolving loan fund

Incentives Panel:

- The Massachusetts Technology Collaborative has supported clean fuels in a number of ways (individual company support, prepared a cluster study, working with others to respond to the Bioenergy Research Center RFP) and will continue to provide leadership in technology and market development support. For information about the Collaborative and their programs: http://www.masstech.org/

- The Massachusetts Green Energy Fund has supported at least one company developing a highly selective, high performance membrane technology that can replace distillation steps. For information about our fund: http://www.massgreenenergy.com

- The Massachusetts Office of Business Development is a one-stop shop for businesses that can mobilize a suite of economic development organizations, research institutions, resources, incentives and one-on-one advice. For more information about their services, see http://www.mass.gov/mobd

- The Executive Office of Environmental Affairs will assist the industry as needed including assisting with permitting strategies.

- The Division of Energy resources will post workshop information including copies of panel presentations and cellulosic ethanol updates at http://www.mass.gov/doer/programs/renew/ethanol-110806.htm

- The Coalition of Northeast Governors Policy Research Center (http://www.coneg.org) and Northeast Regional Biomass Program (http://www.nrbp.org) handed out information on a number of federal funding opportunities. The Northeast Regional Biomass Program encouraged regional coordination and collaboration that will strengthen proposals for federal research funding.